U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

ATTY. DOCKET NO. **D0288 NP** APPLICATION NO. 10/630,406 APPLICANT KUNKEL ET AL. FILING DATE JULY 30, 2003

Group

EXAMINER

lu6 0 9 20	4							
			U.S. I	PATENT DOCUMENTS				
INITIAL		DOCUMENT NUMBER	DATE	NAME	CL	ASS SUBCL	ASS	FILING DATE
\sim	AA	5,928,893	7/27/99	Kang et al.				
7	AB	6,210,669	4/3/01	Aruffo et al.				
	AC	6,303,121	10/16/01	Kwon				
17	AD	6,355,779	3/12/02	Goodwin et al.				
17	AE	6,458,934	10/1/02	Hong et al.	7			
	AF							
	AG							
	АН							
	Al							
	AJ							
	AK							
	AL							
			FOREIG	N PATENT DOCUMENT	S			
		DOCUMENT NUMBER	DATE	OFFICE	CLASS	SUBCLASS	TRA YES	ANSLATION NO
-	AM							
	AN							
	AO		,					
	AP							
	AQ							
		OTHER DOC	UMENTS (Including Author, Title, Date, I	Pertinent pages, E	Etc.)		
	AR							
	AS					:		
	AT							

*EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609: Draw a line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.

DATE CONSIDERED

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

ATTY. DOCKET NO. D0288 NP APPLICATION NO. 10/630,406 APPLICANT KUNKEL ET AL. FILING DATE JULY 30, 2003

Group

/	6	F) ₍	E Y	
	MAL	1	2	2004	6 2
图	. =		-	.(3

	u	I.S. I	P	AΤ	Εľ	TΓ	DC	C	UI	И.	Е١	IT	S
--	---	--------	---	----	----	----	----	---	----	----	----	----	---

EXAMINER VINITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	/AA	US5,530,101	6/25/96	Queen et al.	<u> </u>		
	AB	•					7
-V-	AC				•		
	AD						; ,,,-
	AE						
	AF						
	AG						
	АН					<u> </u>	
	AI				·	<u> </u>	
	AJ						
	AK						
	AL						Ì

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	OFFICE	CLASS	SUBCLASS	TRAN YES	SLATION NO
AM							
AN							
AO							
AP							
AQ							

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent pages, Etc.)

	N	AR	Kim, Y. et al., Eur. J. Immunol., "Human 4-1BB Regulates CD28 Co-Stimulation To Promote Th1 Cell Responses", Vol. 28, pgs. 881-890 (1998)
		AS	Ashkenazi, A., Nature, "Targeting Death and Decoy Receptors Of The Tumour-Necrosis Factor Superfamily", Vol. 2, pgs. 420-430 (2002)
`	1/	АТ	Pollok, K. et al., Eur. J. Immunol., "4-1BB T-Cell Antigen Binds To Mature B Cells and Macrophages, and Costimulates Anti-µ-Primed Splenic B Cells, Vol. 24, pgs. 367-374 (1994)
E	XAMIN	ER	DATE CONSIDERED 149/00

*EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609: Draw a line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

ATTY. DOCKET NO. D0288 NP APPLICATION NO. 10/630,406 APPLICANT KUNKEL ET AL. FILING DATE

Group

O yr a	` }	A	JULY 30, 2003
JAN 1 2 2	Ž	16 30	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent pages, Etc.)
SE DEMA	ST OF	AA	Melero, I. et al., Cellular Immunology, "NK1.1 Cells Express 4-1BB (CDw137) Costimulatory Molecule and Are Required for Tumor Immunity Elicited by Anti-4-1BB Monoclonal Antibodies", Vol. 190, pgs. 167-172 (1998)
U,	,	AB	Kwon, B. et al., Mol. Cells, "4-1BB: Still in the Midst of Darkness", Vol. 10, No. 2, pgs. 119-126 (2000)
	,	AC	Rosenberg, S., Nature, "Progress in Human Tumour Immunology and Immunotherapy", Vol. 411, pgs. 380-384 (2001)
	,	AD	Halapi, E., Medical Oncology, "Oligoclonal T Cells in Human Cancer, Vol. 15, pgs. 203-211 (1998)
	1	ΑE	Resser, J. et al., Current Opinion in Oncology, "Immunotherapy of Head and Neck Cancer", Vol. 10, pgs. 226-232 (1998)
		AF	Elder, D., Acta Oncologica, "Tumor Progression, Early Diagnosis and Prognosis of Melanoma", Vol. 38, pgs. 535-547 (1999)
	1	AG	Zhang, L. et al., The New England Journal of Medicine, "Intratumoral T Cells, Recurrence, and Survival in Epithelial Ovarian Cancer", Vol. 348, pgs 203-213 (2003)
		AH	Rosenberg, S., The Cancer Journal From Scientific American, "Interleukin-2 and the Development of Immunotherapy for the Treatment of Patients With Cancer", Vol. 6, pgs. S2-S7 (2000)
		Al	Bassi, P., Surgical Oncology, "BCG (Bacillus of Calmette Guerin) Therapy of High-Risk Superficial Bladder Cancer", Vol. 11, pgs. 77-83 (2002)
1	1	AJ	Fishman, M. et al., Expert Opin. Investig. Drugs, "Novel Therapies For Renal Cell Carcinoma- An Update", Vol. 12, No. 4, pgs. 593-609 (2003)
	1	AK	Lenschow, D. et al., Annu. Rev. Immunol., "CD28/B7 System of T Cell Costimulation", Vol. 14, pgs 233-258 (1996)
1		AL	Chambers, C. et al., Current Opinion in Immunology, "Co-Stimulation in T-Cell Responses", Vol. 19, pgs. 396-404 (1997)
	1	AM	Abbas, A. et al., Cellular and Molecular Immunology 3rd ed., "T Lymphocyte Antigen Recognition and Activation", pgs. 139-170 (1997)
\bigvee	/	AN	Hurtado, J. et al., Journal of Immunology, "Potential Role of 4-1BB in T Cell Activation", Vol. 155, pgs. 3360-3367 (1995)
EXAMI	NER	(DATE CONSIDERED 1/9/00

*EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609: Draw a line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE CITATION

1 (Bs eseveral sheets if necessary)

ATTY. DOCKET NO. D0288 NP APPLICATION NO. 10/630,406 APPLICANT KUNKEL ET AL. FILING DATE JULY 30, 2003

Group

JAN 1 2 2004

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent pages, Etc.)

	A CONTRACTOR OF THE PARTY OF TH	OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, Etc.)
h	AA	Futagawa, T. et al., International Immunology, "Expression and Function of 4-1BB and 4-1BB Ligand on Murine Dendritic Cells", Vol. 14, No. 3, pgs. 275-286 (2002)
1	AB	Wilcox, R. et al., Journal of Immunology, "Cutting Edge: Expression of Functional CD137 Receptor by Dendritic Cells", Vol. 168, pgs. 4262-4267 (2002)
	AC	Lindstedt, M. et al., Scandinavian Journal of Immunology, "Expression of CD137 (4-1BB) on Human Follicular Dendritic Cells", Vol. 57, pgs. 305-310 (2003)
	AD	Pollock, K. et al., The Journal of Immunology, "Inducible T Cell Antigen 4-1BB", Vol. 150, No. 3, pgs. 771-781 (1993)
	AE	Vinay, D. et al., Seminars in Immunology, "Role of 4-1BB in Immune Responses", Vol. 10, pgs. 481-489 (1998)
	AF	Hurtado, J. et al., Journal of Immunology, "Signals Through 4-1BB Are Costimulatory to Previously Activated Splenic T Cells and Inhibit Activation-Induced Cell Death", Vol. 158, pgs. 2600-2609 (1997)
	AG	Takahashi, C. et al., Journal of Immunology, "Cutting Edge: 4-1BB Is a Bona Fide CD8 T Cell Survival Signal", Vol. 162, pgs. 5037-5040 (1999)
	АН	Alderson, M. et al., Eur. J. Immunol., "Molecular and Biological Characterization of Human 4-1BB and It's Ligand", Vol. 24, pgs. 2219-2227 (1994)
	Al	DeBenedette, M. et al., Journal of Immunolgy, "Costimulation of CD28 T Lymphocytes by 4-1BB Ligand", Vol. 158, pgs. 551-559 (1997)
-	AJ	Salih, H. et al., Journal of Immunology, "Constitutive Expression of Functional 4-1BB (CD137) Ligand on Carcinoma Cells", Vol. 165, pgs. 2903-2910 (2000)
	AK	Melero, I. et al., Nature Medicine, "Monoclonal Antibodies Against the 4-1BB T-Cell Activation Molecule Eradicate Established Tumors", Vol. 3, No. 6, pgs. 682-685 (1997)
	AL	Wilcox, R. et al., The Journal of Clinical Investigation, "Provision of Antigen and CD137 Signalling Breaks Immunological Ignorance, Promoting Regression of Poorly Immunogenic Tumors", Vol. 109, No. 5, pgs. 651-659 (2002)
	AM	Wilcox, R. et al., Cancer Research, "Impaired Infiltration of Tumor-Specific Cytolytic T Cells in the Absence of Interferon-γ Despite Their Normal Maturation in Lymphoid Organs During CD137 Monoclonal Antibody Therapy", Vol. 62. ogs. 4413-4418 (2002)
	AN	Miller, R. et al., The Journal of Immunology, "4-1BB Specific Monoclonal Antibody Promotes the Generation of Tumor-Specific Immune Responses by Direct Aviation of CD8 T Cells in a CD40-Dependent Manner", Vol. 19, pgs. 1792-1800 (2002)
EXAMIN	VER /	DATE CONSIDERED 17/9/11/

*EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609: Draw a line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

AN

EXAMINER

ATTY. DOCKET NO. D0288 NP APPLICATION NO. 10/630,406 APPLICANT KUNKEL ET AL. FILING DATE JULY 30, 2003

Group

JAN 1 2 2004 OTHER DOCUMENTS (Including Author, Title, Date, Pertinent pages, Etc.) Wen, T. et al., Journal of Immunology, "4-1BB Ligand Mediated Costimulation of Human T Cells Induces CD4 and CD8 T Cell Expansion, Cytokine Production, and the Development of Cytolytic AA Effector Function:, Vol. 168, pgs. 4897-4906 (2002) Hong, H. et al., Journal of Immunotherapy, "A Humanized Anti-4-1-BB Monoclonal Antibody AB Suppresses Antigen-Induced Humoral Immune Response in Nonhuman Primates", Vol. 23, No. 6, pgs. 613-621 (2000) Jones, P. et al., Nature, "Replacing the Complementarity-Determining Regions in a Human AC Antibody With Those From A Mouse", Vol. 321, pgs. 522-525 (1986) Foote, J. et al., J. Mol. Biol., "Antibody Framework Residues Affecting the Conformation of the ΑD Hypervariable Loops", Vol. 224, pgs. 487-499 (1992) Kearney, J. et al., Journal of Immunology, "A New Mouse Myeloma Cell Line That Has Lost Immunoglobulin Expression But Permits the Construction of Antibody-Secreting Hybrid Cell Lines" AE Vol. 123, No. 4, pgs. 1548-1550 (1979) Angal, S. et al., Molecular Immunology, "A Single Amino Acid Substitution Abolishes The Heterogeneity of Chimeric Mouse/Human (IgG4) Antibody", Vol. 30, No. 1, pgs. 105-108 (1993) AF Saiki, R. et al., Science, "Primer-Directed Enzymatic Amplifications of DNA With A Thermostable DNA Polymerase", Vol. 239, pgs. 487-491 (1987) AG Loh, E. et al., Science, "Polymerase Chain Reaction With Single-Sided Specificity: Analysis of T Cell Receptor δ Chain, Vol. 243, pgs. 217-220 (1989) AH Chothia, C. & al., J. Mol. Biol., "Canonical Structures for the Hypervariable Regions of Immunoglobulins", Vol. 196, pgs. 901-917 (1987) ΑI Lesk, A. et al., Antibody Engineering, A Practical Guide, "Antibody Structure ad Structural Predictions Useful in Guiding Antibody Engineering", pgs. 1-38 (1992) Lane, R., Journal of Immunological Methods, "A Short-Duration Polyethylene Glycol Fusion Technique for Increasing Production of Monoclonal Antibody-Secreting Hybridomas" Vol. 81, pgs. AK 223-228 (1985) AL AM

*EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609: Draw a line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.

DATE CONSIDERED